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Applicants	:	Lance A. TATMAN et al.
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Title: SYSTEMS AND METHODS FOR PHYSICAL LOCATION SELF-AWARENESS IN NETWORK CONNECTION DEVICES

APPEAL BRIEF

U.S. Patent and Trademark Office
Customer Window, Mail Stop **Appeal Brief - Patents**
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

In response to the FINAL Office Action dated 11 August 2008, finally rejecting pending claims 1-51, and in support of the Notice of Appeal filed on 12 November 2008, Applicants hereby respectfully submit this Appeal Brief.

REAL PARTY IN INTEREST

According to an assignment recorded at Reel 014096, Frame 0887, Agilent Technologies owns all of the rights in the above-identified U.S. patent application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences related to this application or to any related application, nor will the disposition of this case affect, or be affected by, any other application directly or indirectly.

STATUS OF CLAIMS

Claims 1-51 are pending and all stand rejected.

Accordingly, the claims on Appeal are claims 1-51.

STATUS OF AMENDMENTS

There are no pending amendments with respect to this application.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a method and system of location self-awareness for a network connected device.[1]

Accordingly, as broadly recited in claim 1, a system is provided for physical location self awareness in network connected devices. The system comprises: a location server (FIG. 2 – element 230; FIG. 3 – elements 321-232; paragraph [0025], line 12) acquiring locations of the devices (FIG. 2 – element 203; FIG. 3 – elements 311-33; paragraph [0027], lines 4-6; paragraph [0029], lines 6-8) from a real-time location system (FIG. 2 – element 210; FIG. 3 – elements 306-308; paragraph [0025], line 5; paragraph [0029], lines 5-6); an agent (FIG. 2 – element 225; FIG. 3 – element 325; paragraph [0025], lines 9-12) operable to run on each of the devices, the agent querying (FIG. 1 – element 102; paragraph [0022], lines 3-5; paragraph [0027], line 1; paragraph [0030], lines 6-7) the location server for a location of the device and storing (FIG. 1 – element 104; paragraph [0022], lines 5-7; paragraph [0027], line 7-8;) location information for the device on the device; and wherein when the location server is unable to satisfy the query for the location of the device, the location server is operable to query a hierarchical server (FIG. 3 – element 350; paragraph [0030], line 10 – paragraph [0032], line 9) that is operable to query other

1 In the description to follow, citations to various reference numerals, figures, and corresponding text in the specification are provided solely to comply with Patent Office rules. It should be understood that these reference numerals, figures, and text are exemplary in nature, and not in any way limiting of the true scope of the claims. It would therefore be improper to import anything into any of the claims simply on the basis of **exemplary** language that is provided here only under the obligation to satisfy Patent Office rules for maintaining an Appeal.

location servers for the location of the device.

As further featured in claim 2, the location server maintains the locations of the devices in a database (paragraphs [0021], lines 3-4).

As further featured in claim 6, the agent is software executed by the device (paragraph [0020], lines 4-6).

As further featured in claim 7, the agent is a process incorporated into the device (FIG. 2 – element 225; paragraph [0025], lines 9-11).

As further featured in claim 8, the agent is incorporated into firmware of the device (paragraph [0020], lines 6-8).

As further featured in claim 11, the agent stores the location of the device in memory of the device (paragraph [0022], lines 5-7; paragraph [0027], lines 6-8).

As further featured in claim 13, the real-time location system comprises: a tag (FIG. 2 – element 215; paragraph [0025], lines 7-9) associated with each device to be tracked ; a plurality of receivers (FIG. 2 – element 212; paragraph [0025], lines 5-7), the receivers locating each of the tags; and a central database of locations of the tagged devices (FIG. 2 – element 220; paragraph [0026], lines 3-5).

As further featured in claim 22, the system further comprises a plurality of real-time location systems (FIG. 3 – elements 306-308; paragraph [0029], lines 5-6).

As further featured in claim 23, the system further comprises a location server (FIG. 3 – elements 321-323; paragraph [0029], lines 8-9) associated with each of the real-time location systems and the hierarchical server for searching for a location of a device starts from a last known location server outward to a next closest location server (paragraphs [0030] – [0032]).

As broadly recited in claim 24, a method is supplied for providing location self awareness in a network connected device. The method comprises: establishing a location server (FIG. 2 – element 230; FIG. 3 – elements 321-232; paragraph [0025], line 12) for acquiring a location of the device (FIG. 2 – element 203; FIG. 3 – elements 311-33; paragraph [0027], lines 4-6; paragraph [0029], lines 6-8) from a real-time location system (FIG. 2 – element 210; FIG. 3 – elements 306-308; paragraph [0025], line 5; paragraph [0029], lines 5-6); executing an agent (FIG. 2 – element 225; FIG. 3 – element 325; paragraph [0025], lines 9-12) on the device;

instructing, by the agent, the device to send a query (FIG. 1 – element 102; paragraph [0022], lines 3-5; paragraph [0027], line 1; paragraph [0030], lines 6-7) to the location server for location information for the device; wherein when the location server is unable to provide the location information for the device in response to the query, then the location server querying a hierarchical server (FIG. 3 – element 350; paragraph [0030], line 10 – paragraph [0032], line 9) to obtain the location information from another location server; and storing (FIG. 1 – element 104; paragraph [0022], lines 5-7; paragraph [0027], line 7-8) the location information for the device on the device.

As further featured in claim 33, location information updates are pushed only to devices for which location information has changed (paragraph [0028], lines 3-4).

As broadly recited in claim 39, a system is provided for physical location self awareness in a network connected device (FIG. 3 – elements 311-33; paragraph [0027], lines 4-6; paragraph [0029], lines 6-8) across a domain of a plurality of related real-time location systems (FIG. 3 – elements 306-308; paragraph [0029], lines 5-6). The system comprises: a plurality of location servers (FIG. 3 – elements 321-232; paragraph [0029], lines 8-9), each location server acquiring locations of devices under a real-time location system associated with the location server; an agent (FIG. 2 – element 225; FIG. 3 – element 325; paragraph [0025], lines 9-12) operable to run on each of the devices, the agent on a device querying (FIG. 1 – element 102; paragraph [0022], lines 3-5; paragraph [0030], lines 1-2, 6-7) a nearest location server associated with the device for a location of the device and storing (FIG. 1 – element 104; paragraph [0022], lines 5-7; paragraph [0027], line 7-8) location information for the device on the device; and a hierarchical server (FIG. 3 – element 350; paragraph [0030], line 10 – paragraph [0032], line 9) adapted to querying each of the location servers for a location of the devices if the nearest location server fails to return a location of the device.

As further featured in claim 40, the hierarchical server queries a next closest location server when the nearest location server fails to return a location of the device (paragraphs [0030] – [0032]).

As further featured in claim 41, the hierarchical server queries a further next

closest location sever when the next closest location server fails to return a location of the device (paragraphs [0030] – [0032]).

As further featured in claims 42 and 48, a newly assigned location server pushes a location information update for a moved device (paragraph [0033]).

As further featured in claims 43 and 50, the location information update is pushed to a previous location server to which the moved device was assigned (paragraph [0034]).

As broadly recited in claim 45, a method is provided for physical location self awareness in network connected devices (FIG. 3 – elements 311-33; paragraph [0027], lines 4-6; paragraph [0029], lines 6-8) across a domain of a plurality of related real-time location systems (FIG. 3 – elements 306-308; paragraph [0029], lines 5-6). The method comprises: establishing a plurality of location servers (FIG. 3 – elements 321-232; paragraph [0029], lines 8-9), each of the location servers acquiring locations of the devices under a real-time location system associated with the location server; executing an agent (FIG. 3 – element 325; paragraph [0025], lines 9-12) on each of the devices; instructing, by the agent, that an associated device send a query (FIG. 1 – element 102; paragraph [0022], lines 3-5; paragraph [0030], lines 1-2, 6-7) for location information of the device to a nearest location server associated with the device; querying, by a hierarchical server (FIG. 3 – element 350; paragraph [0030], line 10 – paragraph [0032], line 9), upon failure of the nearest location server to return a location of the device, each of the location servers for a location of the device; and storing (FIG. 1 – element 104; paragraph [0022], lines 5-7; paragraph [0027], line 7-8), by the agent, returned location information for the device on the device.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on Appeal are: (1) the rejections of claims 1-8, 10-14, 16, 17, 22-24, 26-30, 32-34 and 39-51 under 35 U.S.C. § 102 over LeBlanc et al. U.S. Patent 6,236,365 ("LeBlanc"); (2) the rejections of claims 9 and 25 under 35 U.S.C. § 103 over LeBlanc in view of Girard U.S. Patent Publication 2003/0005316 ("Girard"); (3) the rejections of claims 15 and 31 under 35 U.S.C. §

103 over LeBlanc in view of Raz et al. U.S. Patent 5,852,715 ("Raz"); and (4) the rejections of claims 18-21 and 35-38 under 35 U.S.C. § 103 over LeBlanc in view of Land et al. U.S. Patent 6,008,805 ("Land").

ARGUMENTS

(1) Claims 1-8, 10-14, 16, 17, 22-24, 26-30, 32-34 & 39-51 Are Patentable Over LeBlanc

Claim 1

Among other things, the system of claim 1 includes an agent operable to run on each of a set of network connected devices, the agent querying a location server for a location of the device and storing location information for the device on the device, wherein when the location server is unable to satisfy the query for the location of the device, the location server is operable to query a hierarchical server that is operable to query other location servers for the location of the device.

Applicants respectfully submit that LeBlanc does not disclose any system including this combination of features.

The Examiner states that LeBlanc discloses an agent operable to run on each of a set of network connected devices at col. 8, lines 1-5.

Col. 8, lines 1-5 only mentions agents of *"trigger-based inventory and tracking systems"* to which LeBlanc's system and method can provide *"flexible delivery of location information."* Col. 8, lines 1-5 of LeBlanc does not disclose that these agents are operable to run on any network-connected devices and query a location server for a location of the device on which they are running.

However, the Examiner states that col. 13, lines 45-49, 53-58 and 63-67 disclose that these agents query a location server for a location of the device on which they are running.

Respectfully, the cited text at col. 13, lines 45-49, 53-58 and 63-67 does not disclose this. The cited text discloses that location information may be provided to an **initiating caller** who wishes to learn his location. It is an actual caller (not an agent) that queries for the location of the mobile station (MS) using a voice channel. **The**

cited text does not mention any agent installed on a device, and particularly does not mention any agent of *"trigger-based inventory and tracking systems"* – which the Examiner has previously denoted (by citing col. 8, lines 1-5) as supposedly corresponding to the agents of claim 1.

So it is seen that the text cited by the Examiner does not disclose any agent operable to run on each of a set of network connected devices, the agent querying a location server for a location of the device and storing location information for the device on the device.

The Examiner also states that LeBlanc discloses at col. 63, lines 42-56 that when a location server is unable to satisfy a query for a location of a device, the location server is operable to query a hierarchical server that is operable to query other location servers for the location of the device.

Applicants respectfully disagree.

The cited text describes FIG. 36 of LeBlanc.

FIG. 36 illustrates a system whereby an initiating caller (not any agent) may request and obtain the location of a target mobile station. The caller does this by dialing a predefined telephone number associated with an automatic call distributor (ACD). The ACD prompts the caller to provide information (e.g., a mobile identification number (MIN)) identifying the target mobile station whose location is being requested. Then the ACD contacts the location center 142 to request the location of the target mobile station. Location center 142 works in conjunction with mobile switching centers 108 to determine whether or not the target mobile station can be located, and if so, provides the location information back to the ACD, which in turn provides this information to the requesting caller.

FIG. 36 has a single location center 142. FIG. 36 does not have any hierarchical server which is queried by location center 142 whenever location center 142 is unable to satisfy a query by an agent running on a device for the location of the device. FIG. 36 does not show any "other location servers" which could be queried by the (nonexistent in FIG. 36) hierarchical server.

Nothing in the cited text mentions any hierarchical server which is queried by a location server whenever the location server is unable to satisfy a query by an agent

running on a device for the location of the device. Nothing in the cited text mentions that any such hierarchical server then in turn queries any other location servers for the location of the device. The mobile switching centers 108 mentioned in the text cited by the Examiner are neither a hierarchical server, nor "other location servers" as recited in clam 1. The mobile switching centers 108 are utilized by the one and only location center 142 of FIG. 36 of LeBlanc to try to and determine a location of a target mobile device (see col. 64, lines 16-20).

LeBlanc has 43 separate figures. It seems reasonable to expect that if LeBlanc actually disclosed the relationship between a device, and agent, a location server, a hierarchical server, and other location servers of claim 1, that the Examiner would be able to specifically identify (preferably by reference numerals) which elements in LeBlanc supposedly correspond to these various claimed elements. Yet the Examiner does not bother to identify any of the numerous elements in any of the drawings as allegedly corresponding to any of the elements of Applicants' claims, instead merely citing disjointed and unrelated pieces of texts strewn throughout LeBlanc and separated in some cases by 20 or more pages of text.

Applicants respectfully requested that the Examiner provide the courtesy of specifically identifying exactly what elements of LeBlanc supposedly correspond to each of the elements of claim 1, if for no other reason than to clarify the record for the Board.

The Examiner has declined to do so.

Applicants invite the Board to draw its own conclusions.

RESPONSE TO RESPONSE TO ARGUMENTS IN FINAL OFFICE ACTION

The Examiner states that LeBlanc clearly discloses an intelligent agent located on each device to be located, citing col. 8, lines 21-24 and col. 10, lines 19-22. However, nowhere in the cited text does LeBlanc disclose that any agent runs on the device to be located – as clearly recited in claim 1.

The Examiner states that LeBlanc discloses "plural location ***centers***" (as an aside, Applicants note that claim 1 does not even mention any "location centers" – but instead specifically recites plural location ***servers***) in col. 13, lines 13-21.

Applicants disagree. The cited text merely teaches that the various modules of "**the location center**" (col. 13, lines 19-20) may be remotely located with respect to one another. The text mentions nothing about any plurality of location servers as recited in claim 1. This is not surprising, as LeBlanc neither discloses nor is at all concerned with any system that employs a hierarchical arrangement of location servers).

Accordingly, for at least these reasons, Applicants respectfully submit that claim 1 is very clearly patentable over LeBlanc.

Claim 24

Among other things, the method of claim 24 includes an agent executing on a device instructing the device to send a query to a location server for location information for the device, and when the location server is unable to provide the location information for the device in response to the query, then the location server queries a hierarchical server to obtain the location information from another location server.

As explained above with respect to claim 1, the cited text in LeBlanc does not disclose any agent on a device that sends a query to a location server for location information for the device. As also explained above with respect to claim 1, the cited text in LeBlanc does not disclose that when a location server is unable to provide the location information for the device in response to the query, then the location server queries a hierarchical server to obtain the location information from another location server.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 24 is patentable over the cited text.

Claim 39

Among other things, the system of claim 39 includes a plurality of location servers, each location server acquiring locations of devices under a real-time location system associated with the location server; an agent operable to run on each of the devices, wherein the agent on a device queries a nearest location server associated with the device for a location of the device and storing location information for the device on the device; and a hierarchical server adapted to querying each of the

location servers for a location of the devices if the nearest location server fails to return a location of the device.

The Examiner states that LeBlanc discloses a plurality of location servers at col. 11, lines 3-9 and col. 13, lines 12-17 "modules."

Applicants respectfully disagree.

The cited text mentions separate modules of a location center may reside in remote locations.

It does not mention any plurality of location centers – or plurality of location servers, as recited in claim 39. This is especially evident by the language at col. 13 on the following lines 19-21:

> "*For example, some number of **THE** location center modules may reside in remote locations and communicate their generated hypotheses via the Internet*"

(Emphasis Added).

These "modules" of one location center do not each acquire locations of devices under a real-time location system associated with each module. No agent operating on any device queries a nearest "module" associated with the device for a location of the device. So these modules cannot possibly correspond to the location servers of claim 39.

Also as explained above with respect to claim 1, the cited text in LeBlanc does not disclose any agent on a device that sends a query to a location server for location information for the device. As also explained above with respect to claim 1, he cited text in LeBlanc does not disclose that when a location server is unable to provide the location information for the device in response to the query, then the location server queries a hierarchical server to obtain the location information from another location server.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 39 is patentable over the cited text.

Claim 45

Among other things, the method of claim 45 includes establishing a plurality of location servers, each of the location servers acquiring locations of devices under a real-time location system associated with the location server; an agent executing on a device instructing the associated device to send a query for location information of the device to a nearest location server associated with the device; and querying, by a hierarchical server, upon failure of the nearest location server to return a location of the device, each of the location servers for a location of the device.

As explained above with respect to claim 39, the cited text in LeBlanc does not disclose any plurality of location servers.

As explained above with respect to claim 1, the cited text in LeBlanc does not disclose any agent on a device that sends a query to a location server for location information for the device. As also explained above with respect to claim 1, he cited text in LeBlanc does not disclose that when a location server is unable to provide the location information for the device in response to the query, then the location server queries a hierarchical server to obtain the location information from another location server.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 45 is patentable over the cited text.

Claims 2-8, 10-14, 16, 17, 22-24, 26-30, 32-34, 40-44 and 46-51

Claims 2-8, 10-14, 16, 17, 22-24, 26-30, 32-34, 40-44 and 46-51 depend variously from claims 1, 24, 39 and 45 and are deemed patentable for at least the reasons set forth above with respect to claims 1, 24, 39 and 45, and for the following additional reasons.

Claim 2

TABLE SP-2, cited by the Examiner, is not a database of a location server that maintains locations of devices. Instead, it is a database used by a base station cell during field test measurements for site planning for the base station. See col. 40, lines 1-21.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 2 is patentable over LeBlanc.

Claim 6

The cited text at col. 10, line 20 of LeBlanc does not disclose any software agent that is executed on the actual device itself whose location is being obtained and stored.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 6 is patentable over LeBlanc.

Claim 7

The cited text at col. 8, line 4 of LeBlanc does not disclose any process that is incorporated into the actual device itself whose location is being obtained and stored.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 7 is patentable over LeBlanc.

Claim 8

The cited text at col. 8, line 4 of LeBlanc clearly does not even mention any firmware. More specifically, the cited text does not disclose that the recited agent is incorporated into any firmware in the actual device itself whose location is being obtained and stored.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 8 is patentable over LeBlanc.

Claim 11

The cited text at col. 59, lines 4-5 of LeBlanc does not mention any agent. The cited text at col. 59, lines 4-5 of LeBlanc does not disclose that the recited agent stores the location of the device in memory of the device. Instead, the cited text merely discloses that the device may be used in a complicated process of gathering verified location information by a letter carrier on a postal route, by storing addresses of the route in the device's memory and transmitting the data to a data collection system as the letter carrier travels along his route. Thus, the memory does store predetermined addresses on a letter carrier's route, but it does not store the actual location of the device itself as it travels along the route.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 11 is patentable over LeBlanc.

Claim 13

TABLE SP-5, cited by the Examiner, is a data base of characteristics of various brands and models of mobile phones. No locations are stored in TABLE SP-5. TABLE SP-5 is quite clearly not a central database of locations of tagged devices.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 13 is patentable over LeBlanc.

Claim 22

LeBlanc does not disclose any plurality of real-time location systems. In particular, the cited text at col. 48, lines 10-15 does not disclose any plurality of real-time location systems. Indeed, the cited text at col. 48, lines 10-15 is merely about how LeBlanc determines the characteristics (e.g., the characteristics of TABLE SP-5) of a mobile station which is to be located.

Applicants are quite confident that the Board will have absolutely no difficulty in seeing that the cited text at col. 48, lines 10-15 does not even remotely suggest any plurality of real-time location systems.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 22 is patentable over LeBlanc.

Claim 23

The cited text at col. 63, lines 50-56 of LeBlanc discloses the operation of a location system comprising a single location engine 139 and a plurality of mobile stations 108. It does not disclose a plurality of location servers associated with a plurality of real-time location systems. It does not disclose a hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server.

The cited text at col. 67, lines 52-55 of LeBlanc discloses that when a device cannot be located, instead its last known location (and the time when that location was valid) can be provided instead. It does not disclose a plurality of location servers associated with a plurality of real-time location systems. It does not disclose a hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server.

Accordingly, for at least these additional reasons, Applicants respectfully

submit that claim 23 is patentable over LeBlanc.

Claim 33

The cited text at col. 10, lines 10-19 and col. 14, lines 1-16 of LeBlanc does not disclose that location information updates are pushed **only** to devices for which location information has changed.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 33 is patentable over LeBlanc.

Claim 40

The cited text at col. 63, lines 50-56 and col. 67, lines 52-55 of LeBlanc does not disclose that a hierarchical server queries a next closest location sever when the nearest location server fails to return a location of a device.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 40 is patentable over LeBlanc.

Claim 41

The cited text at col. 63, lines 50-56 and col. 67, lines 52-55 of LeBlanc does not disclose that a hierarchical server queries a further next closest location sever when the next closest location server fails to return a location of a device.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 41 is patentable over LeBlanc.

Claims 42 and 48

The cited text at col. 14, lines 1-16 and col. 63, lines 50-56 of LeBlanc does not disclose that a newly assigned location server pushes a location information update for a moved device.

Accordingly, for at least this additional reason, Applicants respectfully submit that claims 42 and 48 are patentable over LeBlanc.

Claims 43 and 50

The cited text at col. 14, lines 1-16 and col. 63, lines 50-56 of LeBlanc does not disclose that location information update is pushed to a previous location server to which a moved device was assigned.

Accordingly, for at least this additional reason, Applicants respectfully submit that claims 43 and 50 are patentable over LeBlanc.

(2) Claims 9 and 25 Are Patentable over LeBlanc in View of Girard

Claims 9 and 25 depend respectively from claims 1 and 24. Applicants respectfully submit that Girard does not remedy the shortcomings of LeBlanc with respect to claims 1 and 24, and therefore claims 9 and 25 are deemed patentable for at least the reasons set forth above with respect to claims 1 and 24.

(3) Claims 15 and 31 Are Patentable over LeBlanc in View of Raz

Claims 15 and 31 depend respectively from claims 1 and 24. Applicants respectfully submit that Raz does not remedy the shortcomings of LeBlanc with respect to claims 1 and 24, and therefore claims 15 and 31 are deemed patentable for at least the reasons set forth above with respect to claims 1 and 24, and for the following additional reasons.

(4) Claim 18-21 and 35-38 Are Patentable over LeBlanc in View of Land

Claims 18-21 depend from claim 1, and claims 35-38 depend from claim 24. Applicants respectfully submit that Land does not remedy the shortcomings of LeBlanc with respect to claims 1 and 24, and therefore claims 18-21 and 35-38 are deemed patentable for at least the reasons set forth above with respect to claims 1 and 24.

In Conclusion . . .

For all of the foregoing reasons, Applicants submit that claims 1-51 are all patentable over the cited prior art. Therefore, Applicants respectfully request that the rejections of claims 1-51 be withdrawn, the claims be allowed, and the application be passed to issue.

If necessary, the Commissioner is hereby authorized in this reply to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16, 37 C.F.R. § 1.17 or 37 C.F.R. § 41.20, particularly extension of time fees or any additional fee required for filing this

Appeal Brief.

Respectfully submitted,

VOLENTINE & WHITT

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CLAIMS APPENDIX

1. (Previously Presented) A system for physical location self awareness in network connected devices, said system comprising:

a location server acquiring locations of said devices from a real-time location system;

an agent operable to run on each of said devices, said agent querying said location server for a location of said device and storing location information for said device on said device; and

wherein when said location server is unable to satisfy said query for said location of said device, said location server is operable to query a hierarchical server that is operable to query other location servers for the location of said device.

2. (Original) The system of claim 1 wherein said location server maintains said locations of said devices in a database.

3. (Original) The system of claim 2 wherein said location server acquires said locations of said devices when said location server is established.

4. (Original) The system of claim 1 wherein said location server acquires said location from said real-time location system upon said agent querying said location server for a location of said device.

5. (Original) The system of claim 1 wherein said location server is an extension of said real-time location system.

6. (Original) The system of claim 1 wherein said agent is software executed by said device.

7. (Original) The system of claim 1 wherein said agent is a process incorporated into said device.

8. (Original) The system of claim 7 wherein said agent is incorporated into firmware of said device.

9. (Original) The system of claim 1 wherein said agent queries said location server on boot of said device.

10. (Original) The system of claim 1 wherein said agent periodically queries said location server.

11. (Original) The system of claim 1 wherein said agent stores said location of said device in memory of said device.

12. (Original) The system of claim 1 wherein said agent stores said location of said device in mass storage of said device.

13. (Original) The system of claim 1 further comprising said real-time location system comprising:

a tag associated with each device to be tracked;

a plurality of receivers, said receivers locating each of said tags; and

a central database of locations of said tagged devices.

14. (Original) The system of claim 13 wherein said location server is an extension of said real-time location system.

15. (Original) The system of claim 13 wherein said location server comprises a duplicate of said central database.

16. (Original) The system of claim 1 wherein said location server pushes location information updates to devices when location data on said location server changes.

17. (Original) The system of claim 1 wherein said location information stored on said device is accessible by a user networked to said device.

18. (Original) The system of claim 17 wherein said location information is accessible by said user via a shell.

19. (Original) The system of claim 17 wherein said location information is accessible by said user via a simple network management protocol.

20. (Original) The system of claim 19 wherein said location information is stored in a simple network management protocol management information base variable.

21. (Original) The system of claim 20 wherein said variable is system information for the device.

22. (Original) The system of claim 1 further comprising a plurality of real-time location systems.

23. (Previously Presented) The system of claim 22 further comprising a location server associated with each of said real-time location systems and said hierarchical server for searching for a location of a device starting from a last known location server outward to a next closest location server.

24. (Previously Presented) A method for providing location self awareness in a network connected device, said method comprising:

establishing a location server for acquiring a location of said device from a real-time location system;

executing an agent on said device;

instructing, by said agent, said device to send a query to said location server

for location information for said device;

wherein when said location server is unable to provide said location information for said device in response to said query, then said location server querying a hierarchical server to obtain said location information from another location server; and

storing said location information for said device on said device.

25. (Original) The method of claim 24 wherein said executing occurs upon boot of said device.

26. (Original) The method of claim 24 wherein said instructing is repeated periodically.

27. (Original) The method of claim 24 wherein said location information is stored in memory of said device.

28. (Original) The method of claim 24 wherein said location information is stored in mass storage of said device.

29. (Original) The method of claim 24 wherein said location server acquires said device location from said real-time location system as a result of said query.

30. (Original) The method of claim 24 wherein said location server is established as an extension of said real-time location system.

31. (Original) The method of claim 24 wherein said establishing further comprises duplicating a central database of said real-time location system.

32. (Original) The method of claim 24 further comprising:

pushing, by said location server, location information updates to devices when location data on said location server changes.

33. (Original) The method of claim 32 wherein said location information updates are pushed only to devices for which location information has changed.

34. (Original) The method of claim 24 further comprising:

providing access to said stored location information via a network.

35. (Original) The method of claim 34 wherein said providing further comprises:

providing said access via a shell.

36. (Original) The method of claim 34 wherein said providing further comprises:

providing said access via a simple network management protocol.

37. (Original) The method of claim 24 wherein said storing comprises storing said location information as a simple network management protocol management information base variable.

38. (Original) The method of claim 37 wherein said variable is system information for said device.

39. (Previously Presented) A system for physical location self awareness in a network connected device across a domain of a plurality of related real-time location systems, said system comprising:

a plurality of location servers, each location server acquiring locations of devices under a real-time location system associated with said location server;

an agent operable to run on each of said devices, said agent on a device querying a nearest location server associated with said device for a location of said device and storing location information for said device on said device; and

a hierarchical server adapted to querying each of said location servers for a

location of said devices if said nearest location server fails to return a location of said device.

40. (Original) The system of claim 39 wherein said hierarchical server queries a next closest location sever when said nearest location server fails to return a location of said device.

41. (Original) The system of claim 40 wherein said hierarchical server queries a further next closest location sever when said next closest location server fails to return a location of said device.

42. (Original) The system of claim 39 wherein a newly assigned location server pushes a location information update for a moved device.

43. (Original) The system of claim 42 wherein said location information update is pushed to a previous location server to which said moved device was assigned.

44. (Original) The system of claim 42 wherein said location information update is pushed to said moved device.

45. (Previously Presented) A method for physical location self awareness in network connected devices across a domain of a plurality of related real-time location systems, said method comprising:

establishing a plurality of location servers, each of said location servers acquiring locations of said devices under a real-time location system associated with said location server;

executing an agent on each of said devices;

instructing, by said agent, that an associated device send a query for location information of said device to a nearest location server associated with said device;

querying, by a hierarchical server, upon failure of said nearest location server to return a location of said device, each of said location servers for a location of said

device; and

storing, by said agent, returned location information for said device on said device.

46. (Original) The method of claim 45 further comprising:

querying, by said hierarchical server, a next closest location sever when said nearest location server fails to return a location of said device.

47. (Original) The method of claim 46 further comprising:

querying, by said hierarchical server, a further next closest location sever when said next closest location server fails to return a location of said device.

48. (Original) The method of claim 45 further comprising:

pushing, by a newly assigned location server, a location information update for a moved device.

49. (Original) The method of claim 48 wherein said pushing is carried out in response to said device moving into said newly assigned location server's associated real-time locations system's area.

50. (Original) The method of claim 48 wherein said location information update is pushed to a previous location server to which said moved device was assigned.

51. (Original) The method of claim 48 wherein said location information update is pushed to said moved device.

EVIDENCE APPENDIX

{None}

RELATED PROCEEEDINGS APPENDIX

{None}